

REPORT OF THE
OFFICE OF THE AUDITOR GENERAL
TO THE
JOINT LEGISLATIVE AUDIT COMMITTEE

906.1

IMPROVEMENTS NEEDED IN
THE UNIVERSITY OF CALIFORNIA'S
FOUNDATION SEED AND PLANT
MATERIALS SERVICE

NOVEMBER 1979



California Legislature

Joint Legislative Audit Committee

GOVERNMENT CODE SECTION 10500 et al

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RICHARD ROBINSON
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December 3, 1979

906.1

The Honorable Speaker of the Assembly
The Honorable President pro Tempore of the Senate
The Honorable Members of the Senate and the
Assembly of the Legislature of California

Members of the Legislature:

Your Joint Legislative Audit Committee respectfully submits the Auditor General's report concerning the operations of Foundation Seed and Plant Materials Service, University of California. The Auditor General found that:

- Members of a growers' association which contributed money to the University for seed research inappropriately received substantially more of the seed resulting from the research than nonassociation members;
- The foundation is required to be self-supporting, yet the State General Fund has supported part of the foundation's operations; and
- A formal contractual relationship should be established between the University and the California Crop Improvement Association.

The auditors are William M. Zimmerling, CPA, Supervising Auditor; and Dore C. Tanner, CPA.

Respectfully submitted,

RICHARD ROBINSON
Assemblyman, 72nd District
Chairman, Joint Legislative
Audit Committee

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SUMMARY

Foundation Seed and Plant Materials Service (foundation), Agricultural Experiment Station, is the single administrative unit responsible for foundation seed and plant material activities within the University of California. We found these areas during our review which warrant further attention:

- Members of a growers' association which contributed to research received substantially more asparagus seed than did nonmember growers in the same county;
- The operations of the foundation, which should be self-supporting, were augmented by \$31,100 from the State's General Fund in 1978-79;
- The University receives payments in the form of gifts for direct costs incurred in servicing a seed-certifying organization. Had this agreement been formalized, the University could have also recovered indirect costs amounting to as much as \$29,600 in 1978-79.

To correct these deficiencies, we recommend the University consider these actions:

- Develop a method which fairly allocates superior asparagus seed to growers in the State;*
- Discontinue using the State's General Fund for supporting the foundation;
- Contract with the California Crop Improvement Association to provide reimbursement of indirect costs.

* During our review, foundation representatives stated they were changing the system of allocating asparagus seed.

INTRODUCTION

In response to a resolution of the Joint Legislative Audit Committee, we have reviewed Foundation Seed and Plant Materials Service (foundation), an entity within the Agricultural Experiment Station, University of California. This review was conducted under the authority vested in the Auditor General by Section 10527 of the Government Code.

This is the first of two reports on the operations and activities of the University's Agricultural Experiment Station (AES). The AES conducts research to allow the optimal use of natural resources in assuring an adequate supply of food, fiber, and a physical environment of high quality. This report examines the allocation of University asparagus seed, the funding of Foundation Seed and Plant Materials Service, and the University's relationship with the California Crop Improvement Association (CCIA), a seed-certifying organization.*

* Seed certification is a system of evaluating the grower's method of producing seed to ensure that the seeds meet standards for purity and genetic identity.

The Foundation Seed and Plant Materials Service is the single administrative unit within the AES responsible for all foundation seed and plant material activities. Specifically, the Foundation has these objectives:

- To increase and maintain seed supplies developed by the plant improvement programs of the research departments;
- To increase and maintain registered disease and/or virus-tested clones of cultivars of grapevines, fruit trees, and ornamental plants developed by the plant improvement programs of the research departments;*
- To assist research departments in the release of new cultivars from their plant improvement programs;
- To enable the general public, research programs, and others outside the University to use seed and plant materials.

The foundation is administered by a director who is responsible to the Associate Director of the AES. The three units of the foundation and primary functions of each are listed below.

Field Crop Foundation Seed

Produces, processes, warehouses, and sells approximately 65 varieties of foundation seed, including wheat, barley, oats, and beans.

Asparagus Foundation Seed

Produces, processes, and sells foundation asparagus seed.

* A cultivar is a horticultural variety of plant.

Foundation Plant Materials

Maintains a foundation vineyard orchard of registered stock which is the basic virus-tested material of the California Registration and Certification Program of the California Department of Food and Agriculture.

Scope

Our review included an examination of these features of the foundation:

- Procedures for allocating varieties of foundation seed;
- The foundation's ability to support itself from income derived from the sale of seed and plant materials;
- The relationship between the University and the California Crop Improvement Association.

AUDIT RESULTS

GROWERS' ASSOCIATION MEMBERS PROVIDING GIFTS RECEIVED GREATER ALLOCATIONS OF SEED

University researchers developed an asparagus plant, designated as UC 157, which is superior in growth habits and yielding ability to asparagus plants currently used in the industry. The only source of UC 157 seed is the foundation which allocates seed to growers. An asparagus growers' association gave monetary gifts for asparagus research, and, in return, members of the association received over five times more UC 157 seed in 1978 than did nonmember growers in the same county.

UC 157 Asparagus

UC 157 is superior in growth habits and yielding ability compared to asparagus currently grown. The plants resulting from UC 157 seed produce early and are highly uniform, exhibiting deep green, smooth cylindrical spears; tight headedness; and green spear tips and scales. UC 157 plants also initiate clusters of three to five spears at a time. Moreover, UC 157 plants appear to outgrow the damage caused by the fusarium (fungus) disease which threatens the asparagus industry.

The research and development of UC 157 was the result of an inter-disciplinary program conducted at the Riverside and Davis campuses involving plant breeding, plant pathology, and plant physiology. Funds for the research were provided by the State's General Fund and by gifts from an asparagus growers' association. The association provided gift funds totaling \$74,100.

The University accepted the research funds provided by the asparagus growers' association as a gift, that is, property voluntarily and legally transferred with no expectation of compensation. Accordingly, the University is under no obligation to provide any donor with special consideration in return for a gift.

Because of UC 157's superior qualities, demand for the seed has been high. In 1978, the University received requests for approximately 17,000 pounds of seed from California growers. However, approximately 1,300 pounds of seed were available.* Since the demand exceeded the supply by 13 times, the foundation had to allocate a limited amount of seed to growers.

* One to three acres of asparagus can be planted with one pound of UC 157 seed.

Allocation of Seed

The foundation allocates the UC 157 seed to growers in counties based upon each county's percentage of harvested asparagus acres compared to acres harvested statewide. Each county's allocation is then divided among its growers who requested UC 157 seed. The allocations to each county for 1978 and 1977 are shown below.

UC 157 ASPARAGUS SEED ALLOCATIONS BY COUNTY FOR 1978 AND 1977

	<u>1978</u>		<u>1977</u>	
	<u>Pounds</u>	<u>Percentage</u>	<u>Pounds</u>	<u>Percentage</u>
Contra Costa	45	3.5	40	3.4
Fresno	25	1.9	--	--
Glenn	2	0.2	--	--
Imperial	140	10.9	125	10.8
Kern	19	1.5	15	1.3
Kings	3	0.2	--	--
Monterey	105	8.1	95	8.2
Orange	49	3.8	45	3.9
Riverside	25	1.9	15	1.3
Sacramento	18	1.4	20	1.7
San Joaquin	814	63.1	773	66.8
Solano	22	1.7	30	2.6
Tulare	24	1.8	--	--
Total	<u>1,291</u>	<u>100.0</u>	<u>1,158</u>	<u>100.0</u>

As depicted on the chart, San Joaquin County received 63.1 percent of the seed in 1978 and 66.8 percent in 1977. San Joaquin County receives the largest allocation of UC 157 seed because it is the largest grower of asparagus in the State. Nevertheless, in allocating the UC 157 seed among growers in San Joaquin County, the foundation gave substantially more seed to members of an asparagus growers' association than it gave to nonmembers. This allocation appears to compensate the association for its gifts supporting asparagus research. In 1978, San Joaquin County association members generally received 13.5 pounds of seed, while nonmembers in that county received an average of 2.4 pounds. And in 1977, association members received 15 pounds of UC 157, while nonmembers received an average of 4.8 pounds.

As a result of our audit, the foundation is changing the asparagus seed allocation system from a county allotment system to an allocation system based in part on the individual grower's acreage. The foundation is also reserving 15 percent of the seed for new growers without previous acreage.

CONCLUSION

The foundation has inequitably allocated UC 157 asparagus to growers. Asparagus association growers in San Joaquin County who provided gifts which helped fund asparagus research received over five times more seed than did nonmembers in that county.

RECOMMENDATION

We recommend that Foundation Seed and Plant Materials Service fairly allocate UC 157 asparagus seed to growers in the State. The receipt of gifts for research should not be considered when allocating seed.

THE STATE'S GENERAL FUND
AUGMENTED THE FOUNDATION'S BUDGET

University policy requires that the foundation finance its direct costs through revenue generated from its operation. However, the State's General Fund supplemented the foundation's budget by \$31,100 in 1978-79 to pay the wages and employee benefits of the foundation director and a specialist. This subsidy occurred even though the three divisions of the foundation had a \$387,700 surplus as of June 30, 1979.

The Administrative Supplement to the University's Academic Plan states that the activities of the foundation be

self-supporting in terms of direct costs from income derived from the sale of foundation seed and propagating materials . . . , from user fees obtained through grower-agreements with commercial propagators using University registered stock, and from the royalty fees collected on patented cultivars.

If the foundation had applied revenues and surpluses from its three divisions to the costs of wages and employee benefits for two employees, it would not have been supplemented by the General Fund. The following table illustrates the initial surplus for each division, revenues and expenditures for fiscal year 1978-79, and the ending surplus at June 30, 1979.

FOUNDATION SEED AND PLANT MATERIALS SERVICE
 AGRICULTURAL EXPERIMENT STATION,
 UNIVERSITY OF CALIFORNIA
 CHANGES IN FUND BALANCES
FOR THE YEAR ENDED JUNE 30, 1979

	Field Crops Foundation <u>Seed</u>	Foundation Plant <u>Materials</u>	Asparagus Foundation <u>Seed</u>	<u>Total</u>
Surplus, July 1, 1978	\$109,900	\$206,000	\$ 47,000	\$362,900
Transfers to Riverside Campus	<u>--</u>	<u>--</u>	<u>35,500</u>	<u>35,500</u>
	109,900	206,000	11,500	327,400
Revenues	160,800	118,400	122,800	402,000
Expenditures and Encumbrances	<u>177,100</u>	<u>118,200</u>	<u>46,400</u>	<u>341,700</u>
Excess of Revenues over Expenditures	<u>(16,300)</u>	<u>200</u>	<u>76,400</u>	<u>60,300</u>
Surplus, June 30, 1979	<u>\$ 93,600</u>	<u>\$206,200</u>	<u>\$ 87,900</u>	<u>\$387,700</u>

In addition to the expenditures shown above, \$31,100 was paid from the State General Fund for salary support. This payment should be accounted for as direct costs to the foundation's operations. The director of the foundation is responsible for the foundation's entire operation, and the specialist is responsible for the foundation field crop seed. Half of these salaries are paid from the General Fund; the other half of these salaries are paid from foundation funds. The activities of these two employees are directly related to the primary functions of the foundation, and accordingly, the director and the specialist should be fully paid with foundation funds.

CONCLUSION

State general funds amounting to \$31,100 supplemented the operations of Foundation Seed and Plant Materials Service in 1978-79 even though the foundation had a surplus of \$387,700. This subsidy conflicts with the University's policy that each activity of the foundation be self-supporting.

RECOMMENDATION

We recommend that direct costs of Foundation Seed and Plant Materials Service be supported entirely from its revenues and surpluses, without reliance on the State's General Fund.

THE UNIVERSITY'S RELATIONSHIP WITH THE
CALIFORNIA CROP IMPROVEMENT ASSOCIATION
NEEDS TO BE FORMALIZED

No formal written agreement exists between the University and the California Crop Improvement Association (CCIA), a seed-certifying organization. CCIA provides gifts to the University, and, in return, the University disburses funds for salaries and administrative expenses for CCIA-related functions. Since these gifts appear to be payments for direct costs, this arrangement may constitute a contractual relationship. Also, the gifts do not account for the indirect costs incurred by the University. By properly contracting with CCIA, the University would formalize the recovery of direct costs and ensure the recovery of indirect costs.

CCIA Background

The California Crop Improvement Association was established in 1944 as a nonprofit corporation, separate from the University. CCIA's objectives include "maintaining and making available to the public, through seed certification, high quality seeds and propagating materials of superior crop plant varieties . . . to insure genetic identity and purity." CCIA also cooperates with the University's College of Agriculture and Environmental Sciences in developing and distributing superior varieties and strains of crop plants.

Growers of certain types of crops may apply to CCIA to have their seed certified. For a fee, CCIA inspects the seed to ensure that it meets standards for purity and genetic identity by evaluating the grower's method of producing seed. CCIA is designated by the California Department of Food and Agriculture under the California Seed Law as the only seed-certifying agency in the State.

The Board of Directors of CCIA is composed of 16 members, four of whom are employees of the University. The executive secretary of CCIA is also the director of the University's Foundation Seed and Plant Materials Service.

Payments for University
Services to CCIA

The University of California and the California Crop Improvement Association have had a reciprocal relationship since the 1940's. CCIA provides gifts to the University which then disburses these funds for salaries and employee benefits, and general administrative and operating expenses for CCIA-related functions. In 1978-79, the University expended a total of \$100,100--\$41,900 of which covered salaries and employee benefits. These figures include half of the salaries of the CCIA director and specialist position.

Because no contract exists under which CCIA can reimburse the University for direct costs, it gives gifts. A detailed accounting of CCIA expenses and gifts is made each year. For example, in fiscal year 1978-79, the University paid expenses of CCIA totaling \$100,100, and CCIA made gifts to the University equaling that amount. Since the CCIA gifts represent a payment for services rendered by the University, the relationship between the two entities should be classified as a contract.

In addition to direct costs, the University incurs overhead or indirect costs for CCIA activities. Indirect costs are expenditures for common or joint objectives with other University entities which cannot be identified specifically with a particular project. Examples of indirect costs are the maintenance and operation of the physical plant and equipment. The University's policy for contractual relationships is to recover the direct and indirect costs incurred in the performance of extramurally-supported projects to the maximum extent possible.

Currently, CCIA's gifts equal only the direct costs incurred, not the indirect costs. We believe the University is entitled to recover the indirect costs of services it performs for CCIA, just as it recovers costs under other contractual relationships. If the University had properly contracted with CCIA, the University would have recovered indirect costs. In 1978-79, for example, these additional overhead charges have amounted to as much as \$29,600.


CONCLUSION

In return for the University's services, the California Crop Improvement Association gives gifts which pay for direct costs. These gifts, however, do not cover the indirect costs of the University, which, in 1978-79 would have amounted to as much as \$29,600. By properly contracting with CCIA, the University would formalize the recovery of direct costs and ensure the recovery of indirect costs.

RECOMMENDATION

We recommend that the University of California enter into a formal written agreement with California Crop Improvement Association in which the duties, obligations, and responsibilities of each party are clearly stated. The agreement should comply with University contracting policy by including a provision to reimburse the University for indirect costs.

Respectfully submitted,


for THOMAS W. HAYES
Auditor General

Date: November 21, 1979

Staff: William M. Zimmerling, CPA, Supervising Auditor
Dore C. Tanner, CPA

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Office of the Academic Vice President

BERKELEY, CALIFORNIA 94720

November 8, 1979

Mr. Thomas W. Hayes
Auditor General
Joint Legislative Audit Committee
925 L Street, Suite 750
Sacramento, California 95814

Dear Mr. Hayes:

In President Saxon's absence, I am replying to your letter of October 31 to the president which forwarded for review and comment a report entitled "Improvements Needed in the University of California's Foundation Seed and Plant Materials Service."

In response to the recommendation that asparagus seed be fairly allocated to growers in the State, the seed this year will be distributed to individual growers on an acreage basis.

With respect to the use of State General Funds in Connection with the Foundation Seed and Plant Material Service activity, the General Fund support funds 50 percent of the salaries of each of two University employees who are associated with FSPMS. These two employees are classified as Specialists, an academic classification, and contribute to the University's teaching and research program in addition to their FSPMS work. Since the work of these two employees and FSPMS is inextricably comingled with the various missions of the University, the University believes that some part of these two Specialist's salaries from University General Funds is appropriate. A system to measure the effort expended by these two Specialists on behalf of the management of FSPMS will be devised, and all of the salary cost associated with this effort will be charged against FSPMS income.

And finally, the University concurs in the recommendation that a formal written agreement which includes provision for appropriate reimbursement of indirect costs be entered into with the California Crop Improvement Association. This will be done.

Your audit findings and recommendations have been most helpful and we appreciate this opportunity to comment on them.

Sincerely,

Donald C. Swain
Academic Vice President

cc: Members of the Legislature
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Office of the Lieutenant Governor
Secretary of State
State Controller
State Treasurer
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